AMENDMENTS TO THE CLAIMS

The following Listing of Claims will replace all prior versions and listings of claims in the application. No new matter has been added.

1. (Original) A fusion protein, wherein the fusion protein comprises:

a) a ligand that stimulates cancer cell growth and corresponds to receptors overexpressed by cancer cells, or a screened peptide that is affinitive to or antagonist to cancer cell receptors, or a peptide that directly interacts with cancer cell surface;

b) a superantigen that may lead to anti-cancer immune response.

2. (Previously Presented) A fusion protein according to claim 1, wherein the ligand that stimulates cancer cell growth and corresponds to receptors overexpressed by cancer cells is selected from: epidermal growth factor (EGF) family, vascular endothelial cell growth factor (VEGF) family, basic fibroblast growth factor bFGF and FGF family, transforming growth factor -α (TGF-α), interleukin-4, interleukin-2, interleukin-6, interleukin-13, interleukin-3, granulocyte-macrophage colony-stimulating factor (GM-CSF), heparin-binding EGF-like growth factor (HB-EGF), insulin-like growth factor (IGF), hepatocyte growth factor (HGF), platelet-derived growth factor (PDGF), nerve growth factor (NGF), placental growth factor (PGF), stem cell factor (SCF), interleukin-8, Ephrin family, Heregulin, erbB ligand, chemokine, angiopoietin (Ang), thrombopoietin (TPO), factor VII, urokinase-type plasminogen activator (uPA), growth hormone releasing hormone , gonadotropin-releasing hormone (GRH), α-melanocyte stimulating hormone (α-MSH), gastrin-releasing peptide (GRP), prolactin (PRL), prolactin releasing hormone (PRLH), growth hormone, follicle stimulating hormone (FSH), placental lactogen (PL), chorionic gonadotropin (CG), corticotrophin releasing hormone , somatostatin , asialoglycoprotein , low density lipoprotein and transferring, and other ligands associated with cancers or immune diseases, and their nature variants and artificial variants with more than 70% identity, and artifical polypeptides that interact with cancer cell surface receptors.

3-10. (Canceled)

11. (Previously Presented) A fusion protein according to claim 2, wherein the amino acid sequence of natural variants and artificial variants is at least 70% identical to that of the ligands.

12. (Previously Presented) A fusion protein according to claim 1, wherein the superantigen that leads to anti-cancer immune response is selected from: Staphylococcal enterotoxin (SE), Streptococcus pyogenes exotoxin (SPE), Staphylococcus aureus toxic shock-syndrome toxin (TSST), Streptococcal mitogenic extotoxin (SME), Streptococcal superantigen (SSA), viral protein and the nature and artificial variants thereof.

13. (Currently Amended) A fusion protein according to claim [[1]] 12, wherein the Staphylococcal enterotoxin is selected from SEA, SEB, SEC, SED, SEE, SEG, SHE, SEI, SEJ, SEK, SEL, SEM, SER and SET, wherein the Streptococcus pyogenes exotoxin is selected from SPE-A, SPE-B, SPE-C, SPE-F, SPE-G, SPE-H, SPE-I, SPE-J, SPE-L and SPE-M.

14. (Previously Presented) A fusion protein according to claim 1, wherein the ligand that stimulates cancer cell growth and corresponds to receptors overexpressed by cancer cells is selected from epidermal growth factor (EGF) and vascular endothelial cell growth factor (VEGF).

15. (Previously Presented) A fusion protein according to claim 1, wherein the superantigen that leads to anti-cancer immune response is SEA of Staphylococcal enterotoxin family.

16. (Previously Presented) A fusion protein according to claim 1, wherein the superantigen is SEA protein, and the ligand is selected from epidermal growth factor (EGF) and vascular endothelial cell growth factor (VEGF).

17-20. (Canceled)

21. (New) A fusion protein, wherein the fusion protein comprises:

a) a ligand from epidermal growth factor (EGF) family and their nature variants and artificial variants with more than 70% identity;

b) a superantigen that may lead to anti-cancer immune response.

22. (New) A fusion protein according to claim 21, wherein the amino acid scquence of natural variants and artificial variants is at least 70% identical to that of the ligands.

23. (New) A fusion protein according to claim 21, wherein the superantigen that leads to anti-cancer immune response is selected from: Staphylococcal enterotoxin (SE), Streptococcus pyogenes exotoxin (SPE), Staphylococcus aureus toxic shock-syndrome toxin (TSST), Streptococcal mitogenic extotoxin (SME), Streptococcal superantigen (SSA), vital protein and the nature and artificial variants thereof.

24. (New) A fusion protein according to claim 23, wherein the Staphylococcal enterotoxin is selected from SEA, SEB, SEC, SED, SEE, SEG SHE, SEI, SEJ, SEK, SEL, SEM, SER and SET.

25. (New) A fusion protein according to claim 21, wherein the ligand that stimulates cancer cell growth and corresponds to receptors overexpressed by cancer cells is selected from epidermal growth factor (EGF) and vascular endothelial cell growth factor (VEGF).

26. (New) A fusion protein according to claim 21, whercin the superantigen that leads to anti-cancer immune response is SEA of Staphylococcal enterotoxin family.

27. (New) A recombinant vector, wherein the vector comprises a nucleotide sequence that encodes the fusion protein according to claim 21.

28. (New) A host cell, wherein the host cell comprises the recombinant vector according to claim 27.

29. (New) A method for producing the fusion protein according to claim 21, wherein the method comprises:

culturing a host cell, the host cell comprises a recombinant vector, the vector comprises a nucleotide sequence that encodes the fusion protein according to claim 21;

and collecting expressed fusion proteins.

30. (New) A method of preparing therapeutic agents for cancer or immune disease treatment comprising: utilizing the fusion protein according to claim 21.